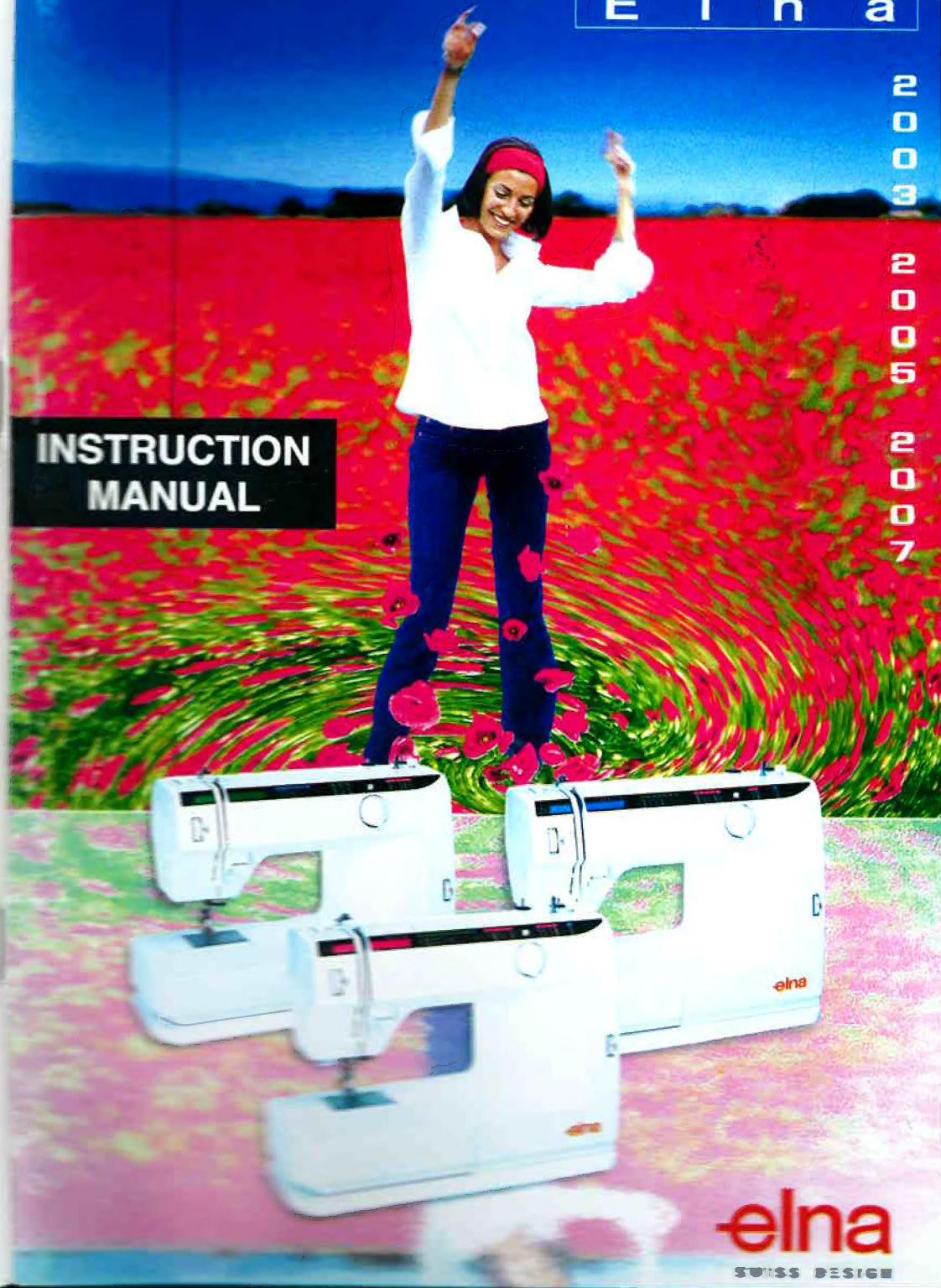


E l n a

2003 2005 2007

INSTRUCTION
MANUAL



IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precaution should always be followed, including the following.

Your Elna 2000 series sewing machine is designed and constructed for **HOUSEHOLD** use only. Read all instructions before using this machine.

DANGER — To reduce the risk of electric shock:

1. Your sewing machine should never be left unattended when plugged in. Always unplug the machine from the electrical outlet immediately after using and before cleaning.
2. Always unplug before replacing light bulb. Replace bulb with same socket type B14, 15W max.
3. Do not place or store machine where it can fall or be pulled into a tub or sink. Do not reach for the machine if it has fallen into water. Unplug immediately.

WARNING — To reduce the risk of burns, fire, electrical shock or injury:

1. Do not allow machine to be used as a toy. Supervision is necessary when this machine is used by or near children.
2. Use this sewing machine only for its intended use as described in this manual. Only use attachments recommended by the manufacturer as described in this manual.
3. Never operate this machine if it has a damaged cord or plug, is not working properly, has been dropped or damaged or dropped into water. Return the machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. This machine is equipped with a special connection cord which, if damaged, must be replaced by an identical cord. This can be obtained from your dealer.
5. Never operate the sewing machine with any air opening blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust and fibers.
6. Never drop or insert any object into any opening.
7. Do not use outdoors.
8. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
9. To disconnect, turn machine off and remove plug from outlet.
10. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
11. Keep fingers away from all moving parts, especially the needle.
12. Always use the proper needle plate. The wrong plate can cause the needle to break.
13. Do not use bent needles.
14. Do not pull or push fabric while stitching. This may deflect the needle causing it to break.
15. Switch the sewing machine off when making any adjustment in the needle area, such as threading needle, changing needle, threading bobbin, changing presser foot, etc.
16. Always unplug the sewing machine from the electrical outlet when removing covers, lubricating or making any other servicing adjustments mentioned in the instruction manual.

SAVE THESE INSTRUCTIONS

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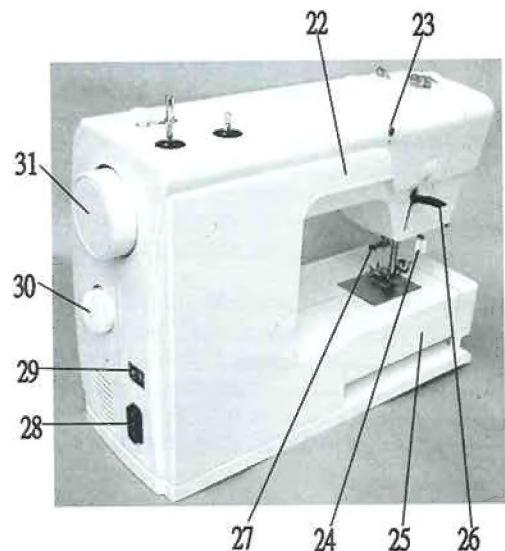
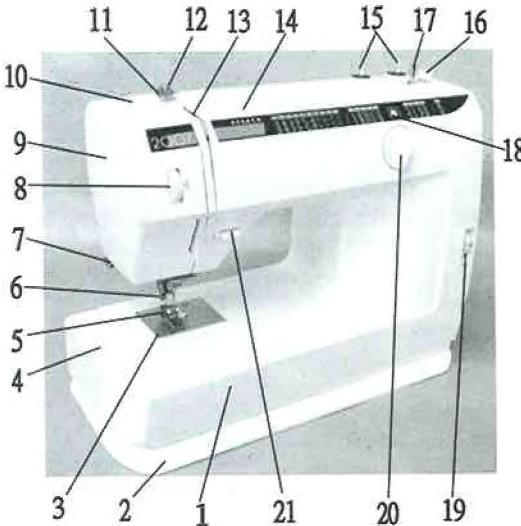
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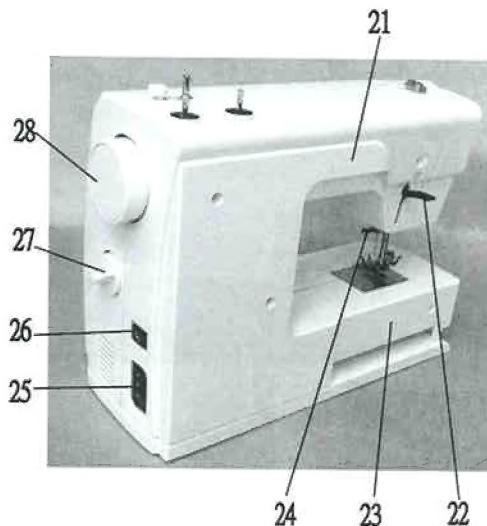
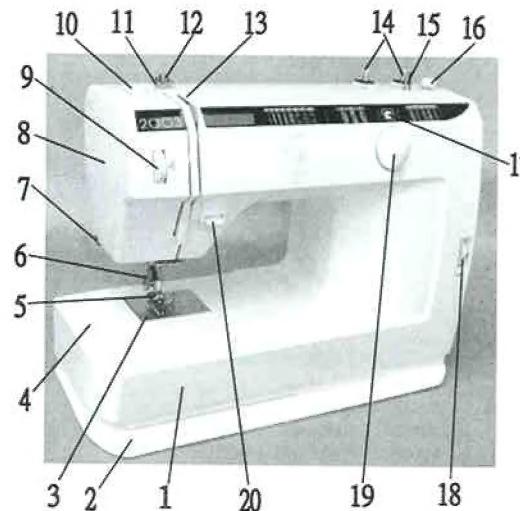


SECTION I

Machine Parts and Functions

PART NAMES (MODELS 2007 and 2005)

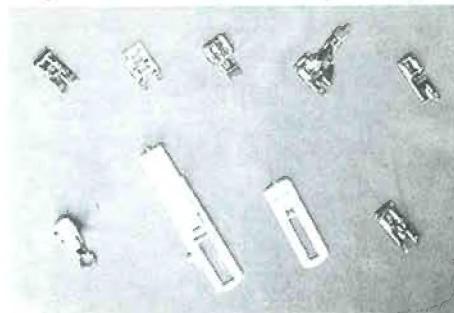
1. Extension table (accessory storage box)
2. Centimeter/inch measurements
3. Needle plate
4. Circular sewing pivot points
5. Presser foot
6. Presser foot release lever
7. Thread cutter
8. Thread tension dial
9. Face plate
10. Foot pressure dial
11. Thread guide
12. Bobbin winder thread guide
13. Thread take-up lever
14. Stitch width slide
15. Spool pins
16. Bobbin winder stop
17. Bobbin winder
18. Stitch selection display window
19. Stitch length display window
20. Stitch selection knob
21. Reverse stitch lever
22. Carrying grip
23. Fine tuning screw
24. Buttonhole lever
25. Free arm
26. Presser foot lever
27. Needle clamp screw
28. Machine socket
29. On/off switch
30. Stitch length knob
31. Flywheel



PART NAMES (MODEL 2003)

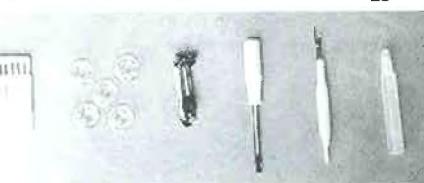
1. Extension table (accessory storage box)
2. Centimeter/inch measurements
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21. Carrying grip
22. Presser foot lever
23. Free arm
24. Needle clamp screw
25. Machine socket
26. On/off switch
27. Stitch length knob
28. Flywheel

1 2 3 4 5

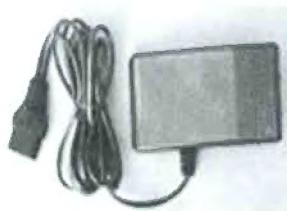


6 7 8 9

10 11 12 13 14 15



16



17



18



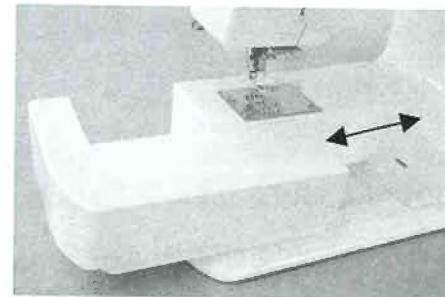
STANDARD ACCESSORIES

1. Metal foot
2. Satin stitch foot
3. Zipper foot
4. Blind hem foot: L
5. Hemmer foot
6. Darning foot
7. Buttonhole foot (models 2007 and 2005)
8. Buttonhole foot (model 2003)
9. Overlock foot: G
10. Needles
11. Bobbins
12. Seam guide
13. Screwdriver
14. Lint brush/seam ripper
15. Oil tube
16. Foot control
17. Semi-hard cover
(models 2007 and 2005)
18. Soft cover (model 2003)

EXTENSION TABLE (ACCESSORY STORAGE BOX) AND FREE ARM

Extension Table

The extension table provides more sewing space to make sewing easier. The extension can be easily removed for free arm sewing.



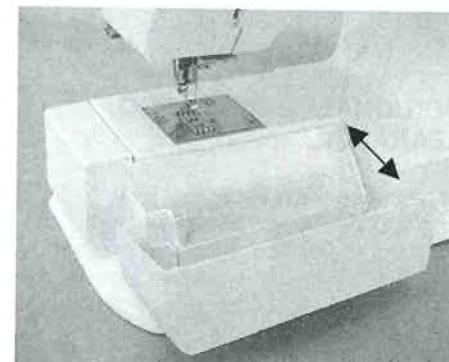
Free arm sewing is good for circle areas like sleeves, waistbands and pant legs. If socks, knee or elbow areas need mending, the free arm will be best to use.

Pull the end of the extension table away from the machine, as shown in the drawing.

Push the table back into place to reattach the extension table.

Accessory Box

The extension table is also a storage box. Pull the door open to see the storage space.





CIRCULAR SEWING PIVOT POINTS

The extension table has holes that are 1 cm apart from each other. Use the holes to sew circles and scallops. See pages 56-57.

FOOT PRESSURE DIAL

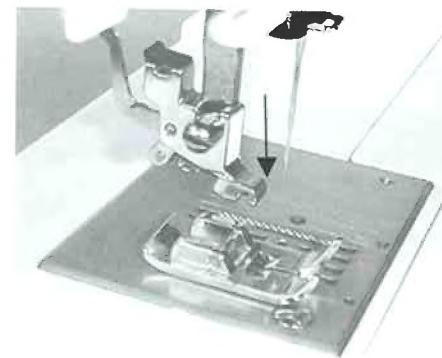
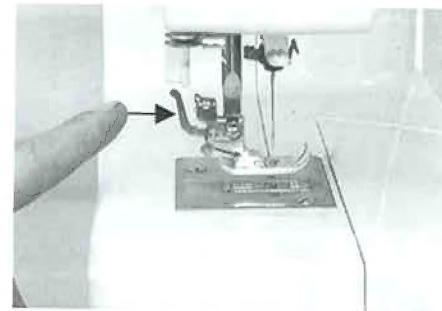
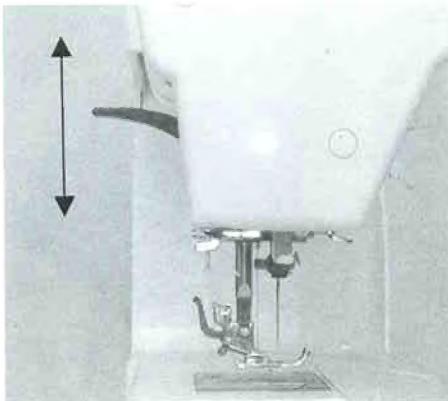
Set the pressure dial at "2" for regular sewing.

Reduce the pressure to "1" for applique, cutwork, drawn work, basting and embroidery.

Velours and knits with a lot of stretch may require a "1" setting.

ADDITIONAL PRESSER FOOT CLEARANCE

You can raise the presser foot higher than the normal up position for easy removal of the presser foot or to place heavy fabrics under the presser foot. Pull the presser foot lever up beyond the normal up position.



HOW TO SNAP OFF AND ON THE PRESSER FOOT

To snap off:

Turn the flywheel toward you to raise the needle to its highest position.

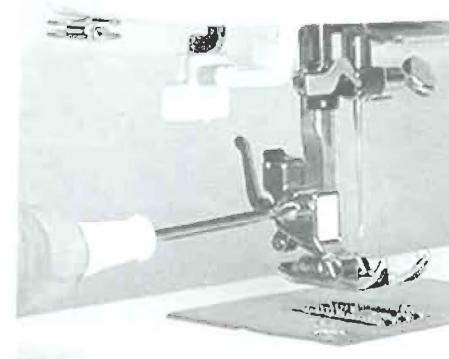
Raise the presser foot.

Press the presser foot release lever. The presser foot will drop off.

To snap on:

When attaching the foot, the pressure dial should always be on "2".

Place the presser foot so that the pin of the foot lies just under the groove of the shank. Lower the shank to attach the foot.

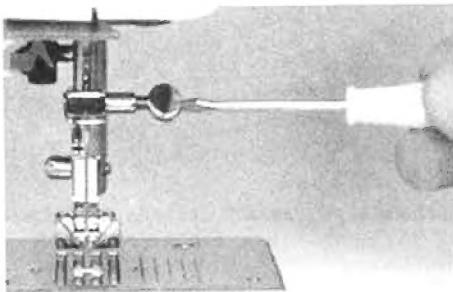


HOW TO REMOVE AND ATTACH THE SHANK

Raise the presser foot.

Turn the screw counterclockwise with the screwdriver to remove the shank.

When attaching, place shank on presser bar. Lower the presser foot lever. Turn screw clockwise to tighten.



CHANGING THE NEEDLE

Turn off the machine. Turn the flywheel toward you to raise the needle. Lower the presser foot.

Turn the needle clamp screw counterclockwise to loosen.

Remove the needle from the clamp.

Insert the new needle into the clamp with the flat side to the back, pushing it up as far as it will go.

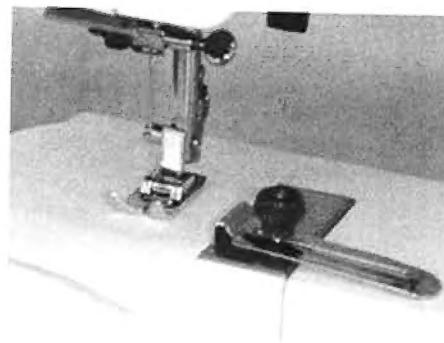
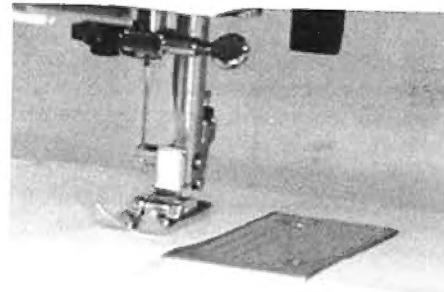
Tighten the clamp screw firmly.

To determine if the needle is bad, place the flat side of the needle on something flat (a needle plate, piece of glass, etc.). The gap between the needle and the flat surface should be even.

Never use a bent or broken needle. It may cause skipped stitches or thread breakage. Bad needles can ruin the fabric.



Always purchase good quality needles. Change needle often.



SEAM ALLOWANCE LINES

The lines on the needle plate help you measure seam width.

The number shows you the space between the center needle position and the line on the needle plate.

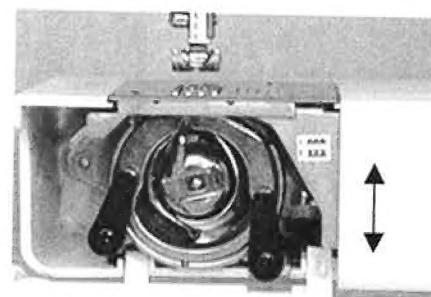
The numbers at the front are in millimeters. The numbers at the back are in inches.

SEAM GUIDE

Use the seam guide for accurate results. It is especially useful when sewing wide hems.

Place the seam guide screw into the hole in the needle plate. Adjust distance for desired setting. Tighten screw.

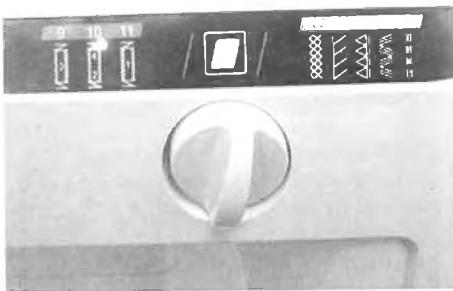
Sew fabric using guide.



HOW TO DROP THE FEED DOG

The feed dog must always be up for normal sewing and down for special sewing, such as free motion embroidery, button sewing, etc.

Open the bobbin cover. Push down the feed dog lever to drop the feed dog. When special sewing is completed, pull up the feed dog lever to raise the feed dog.



STITCH SELECTION KNOB

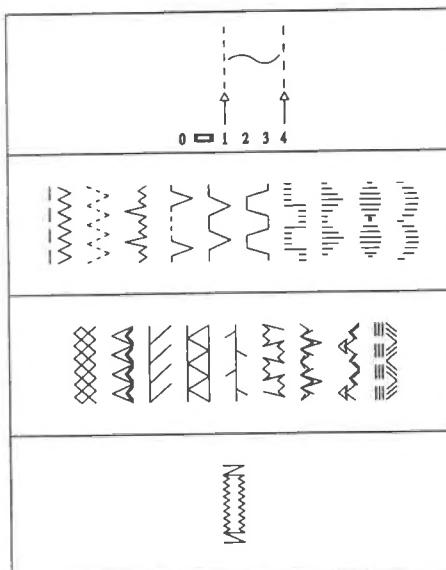
The needle must be at a high position before selecting a stitch. Turn the flywheel toward you to raise the needle.

Turn the stitch selection knob to select a stitch. The selected stitch will be shown in the stitch selection display window.



STITCH LENGTH KNOB

Turn the stitch length knob and the selected length will be shown in the stitch length display window with the arrow indication.

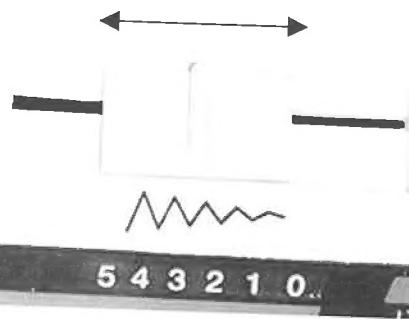


The higher the number, the longer the stitch.

Set stitch length between 0.3 and 4.

Set stitch length at 4.

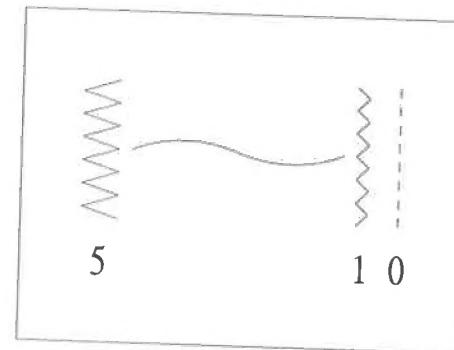
Set stitch length at .



STITCH WIDTH SLIDE (MODELS 2007 AND 2005)

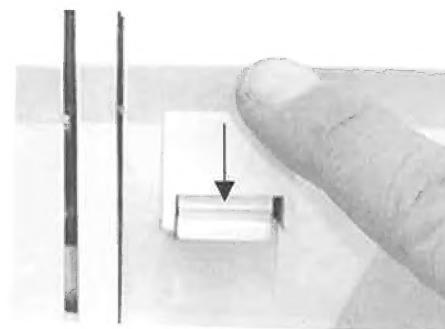
The needle must be at a high position before changing stitch width. Turn the flywheel toward you to raise the needle.

The higher the number, the wider the stitch. The widest stitch this machine can sew is 5 mm.



NOTE: MODEL 2003

The stitch width is pre-set according to the selected stitch. The widest zigzag width is 5 mm.



REVERSE STITCH LEVER

The machine will sew backwards while you press the reverse stitch lever down.

THREAD TENSION DIAL

Straight Stitch

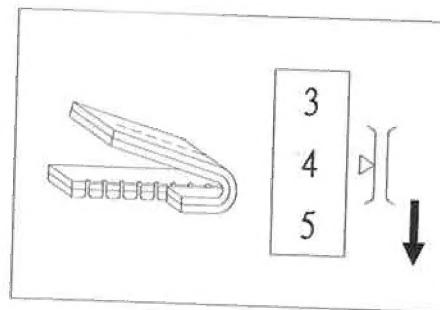
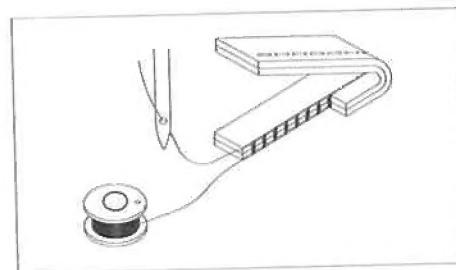
In straight seams, the needle thread and the bobbin thread should lock together in the center of the two layers of fabric.

If you look at the top and bottom of the stitch, you will notice that there are no gaps; each stitch is smooth and even.

When adjusting needle thread tension, the higher the number, the tighter the needle thread.

Here are some reasons you may change the thread tension dial:

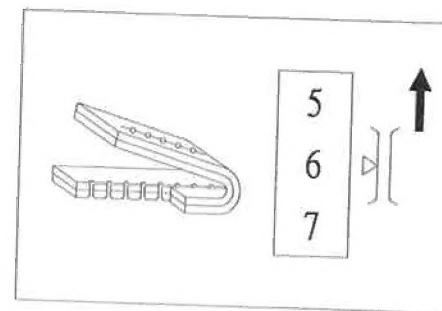
1. The fabric is stiff or heavy.
2. You are sewing more than two layers of fabric.
3. The stitch you are using needs the threads not to lock together in the center of the fabric.



- **Tension is too tight**

The needle thread shows through on the topside of the fabric and it will feel bumpy.

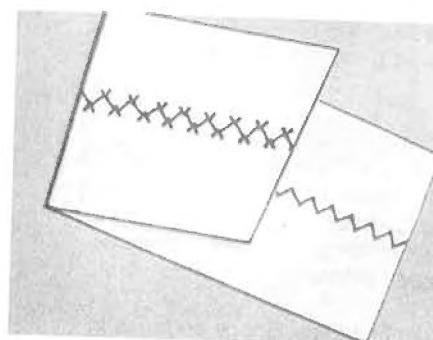
Turn the dial to a lower number to loosen the needle thread tension.



- **Tension is too loose**

The needle thread shows through on the underside of the fabric and it will feel bumpy.

Turn the dial to a higher number to tighten the needle thread tension.



Adjusting Tension for Zigzag and Embroidery

The upper thread tension should be slightly weaker when sewing a zigzag or a satin stitch. The upper thread should appear slightly on the underside of the fabric.

SECTION II

Getting Ready to Sew

SELECTING THE CORRECT NEEDLE AND THREAD

	Fabrics	Threads	Needles
Light Weight	Crepe de chine, Voile, Lawn, Georgette, Organdy, Tricot	Fine Silk Fine Cotton or Polyester Thread	10/70 or 11/75 or 12/80
Medium Weight	Linen, Cotton, Woolens, Double Knits	Medium Weight Cotton or Polyester Thread	11/75 or 12/80 or 14/90
Heavy Weight	Denim, Tweed, Gabardine, Coating, Drapery and Upholstery Fabrics	Heavier Cotton or Polyester Thread	12/80 or 14/90

There are many kinds of fabrics, threads and needles. It is important to use the correct ones together.

Always purchase good quality thread. It should be strong, smooth and even in thickness. Use the same thread for needle and bobbin. Always test thread and needle size on a scrap piece of fabric.

In general, fine threads and needles are used for sewing lightweight fabrics and heavier threads and larger needles are used for sewing heavyweight fabrics. There are many specialty needles available from your sewing machine dealer.

A denim needle with a sharp tip is used to sew heavy fabrics such as denim and canvas. For topstitching, a special topstitching needle with a larger eye must be used for heavier weight thread. Leather needles punch small holes in leather and suede allowing the thread to follow through the hole. When sewing stretch, very fine or synthetic fabrics, use a stretch needle. The stretch needle prevents skipped stitches.

Check your needles frequently for rough or blunt tips. Snags and runs in knits, fine silks and silk-like fabrics are permanent and are often caused by damaged needles.

CONNECTING THE MACHINE TO THE POWER SUPPLY

Before plugging your machine into the wall, check that the on/off switch is in the off position. Push the plug into the machine socket and plug the machine into the wall socket. Switch on the machine.



For Your Safety

1. While the machine is running, always keep your eye on the sewing area. Do not touch any moving parts such as the thread take-up lever, flywheel or needle.
2. Always turn off the machine and unplug it from the power supply when:
 - you are not using it
 - attaching or removing parts
 - cleaning the machine.
3. Do not place anything on the foot control.



FOOT CONTROL AND SEWING SPEED

Sewing speed is determined by how hard you press on the foot control.

The harder you press on the foot control, the faster the machine runs.

For USA and other countries using 120V Use only YDK model YC-482 foot controller with sewing machine model 2003, 2005, 2007.

For EUROPE and other countries using 230V Use only YDK model YC-483-5 foot controller with sewing machine model 2003, 2005, 2007.



IMPORTANT: Before using your sewing machine the first time, place waste fabric under the presser foot and run the machine without thread for a few minutes. Wipe away any excess oil.

REMOVING THE BOBBIN CASE

Open the bobbin cover.

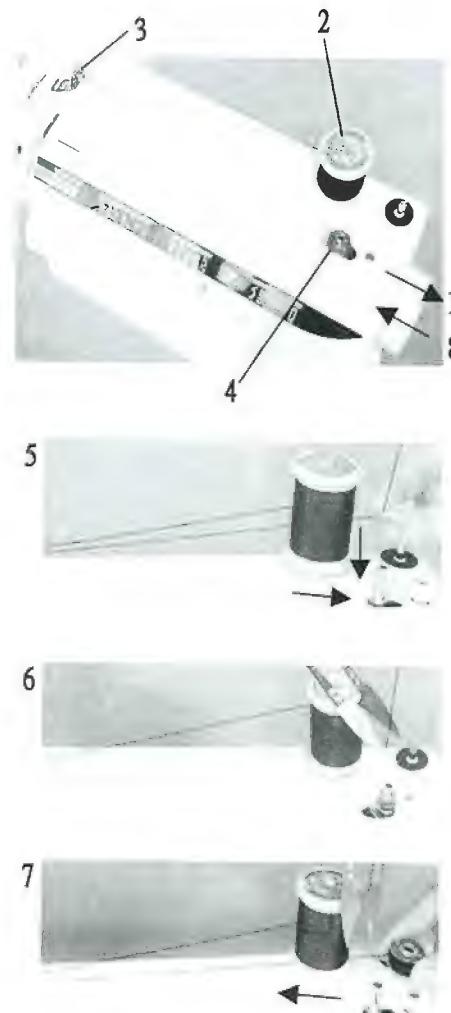
CAUTION-Moving parts.
To reduce risk of injury switch off before servicing.

Hand turn the flywheel toward you to raise the needle. Pull out the latch to remove the bobbin case.

Release latch. Drop bobbin out of bobbin case.

SPOOL PINS

Pull up spool pin(s) to place thread spool. Push spool pin(s) down when carrying or storing machine.



WINDING A BOBBIN

1. Pull out the flywheel to keep the needle from moving up and down.
2. Place the spool of thread on the spool pin with the thread coming off the spool as shown.
3. Pull the thread over around the bobbin winder thread guide.
4. Pass the thread through the hole in the bobbin from inside to the outside.
5. Place the bobbin on the bobbin winder spindle and push it to the right.
6. Hold the free end of the thread and press the foot control. Stop the machine when it has made a few turns and cut the thread tail close to the hole in the bobbin. Press the foot control again until the bobbin is fully wound.
7. Return the bobbin winder spindle to the left and cut the thread.
8. Push the flywheel back into place. (The machine needle will not go up and down until you push in the flywheel.)

For Your Safety

Do not touch any moving parts such as the bobbin.

INSERTING THE BOBBIN

Place the bobbin in the bobbin case. Make sure the thread unwinds in the direction shown in the illustration.



Pull the thread into the bobbin case slot.



Draw the thread under the tension spring and into the delivery eye.

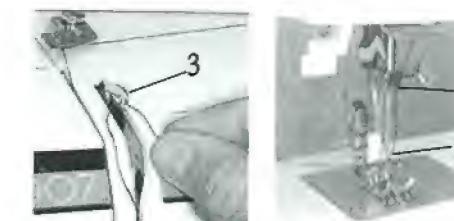
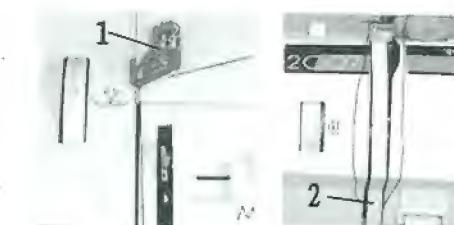
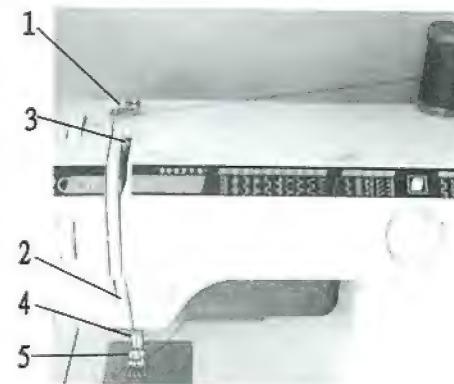


Pull out the latch on the bobbin case.



Insert bobbin case. Make sure the prong fits into the hook race.

Close bobbin cover.



THREADING THE MACHINE

Turn the flywheel toward you to raise the needle to its highest position.

Raise the presser foot.

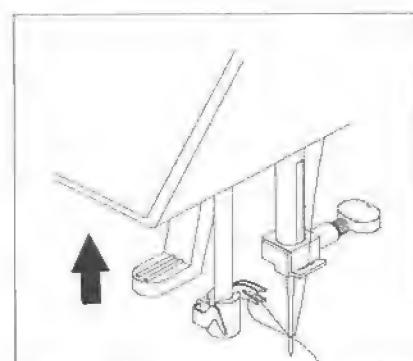
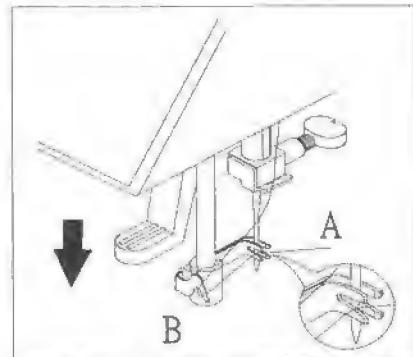
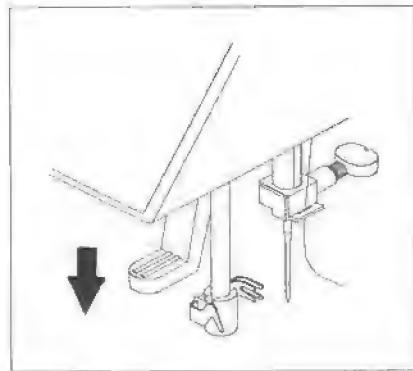
1. Pull the thread under the thread guide and slide it up over the hook.
2. Guide the thread down the left side slot and up the right side slot.
3. Firmly pull the thread from left to right, over the take-up lever and down into the take-up lever eye.
4. Slide the thread to the left behind the needle bar thread guide.
5. Thread the needle from front to back. Use automatic needle threader on models 2007 and 2005. See page 22.

AUTOMATIC NEEDLE THREADER (Models 2007 and 2005)

NOTE: Needle threader cannot be used with a twin needle.

1. Raise the needle to its highest position.

Lower the needle threader lever as far as it will go.



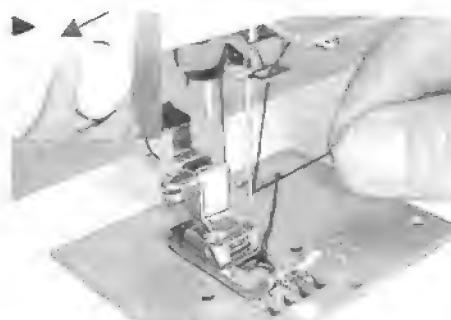
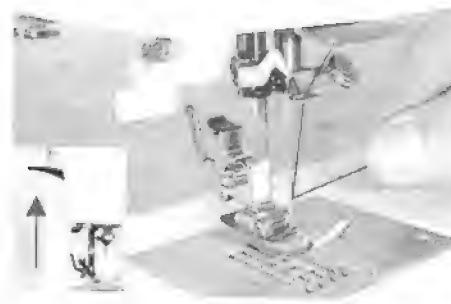
2. Hook A will automatically insert itself into the needle eye. Bring the thread around Guide B and under Hook A.

3. Release the lever and let the needle threader return to its original position. Pull the thread loop to the back to finish bringing the thread through the needle eye.

The needle threader can be used with #11 to #16 size needles. Thread weight may vary from 30 to 100.

DRAWING UP THE BOBBIN THREAD

Raise the presser foot and hold the needle thread lightly with your hand.



Turn the flywheel towards you until the needle has risen and the take-up lever is at its highest position.

Pull up the needle thread together with a loop of bobbin thread.

Slide 10 cm (4") of both threads to the back under the presser foot.

SECTION III

Sewing Basics

EXAMPLE OF HOW TO READ THE MACHINE SET-UP INFORMATION

Set Stitch Selection Knob

① Set the stitch selection knob to stitch shown in illustration. See page 12

Set Stitch Length

② The weight of the fabric will help determine where to move the stitch length knob. Fine fabrics should have a stitch length between 1.5 and 2.5. Medium fabrics should have stitch length between 2.0 and 3.0. Heavier fabrics should have stitch length between 3.0 and 4.0. See page 12.

Set Thread Tension Dial

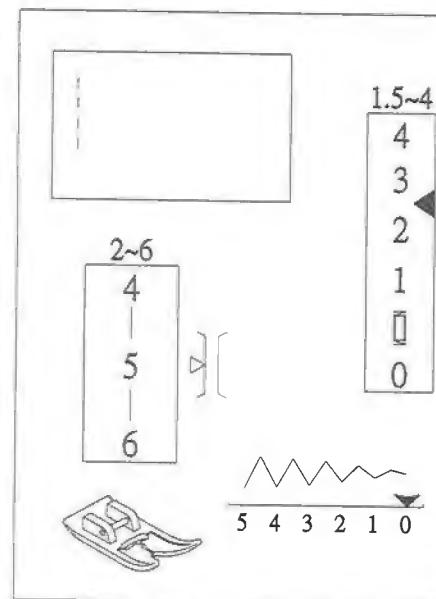
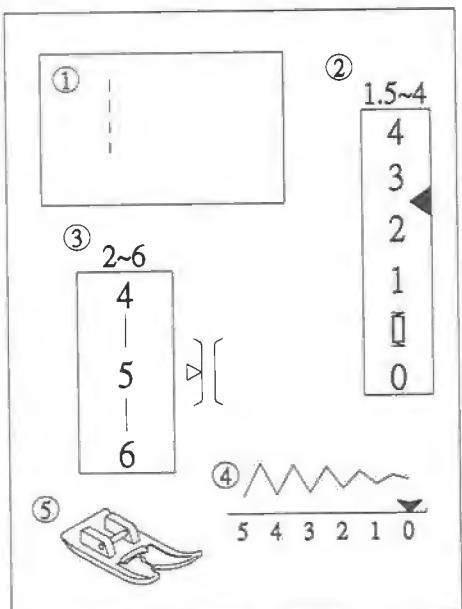
③ Set thread tension to 5. (The fabric, thread and number of layers of fabric might change where you need to set the tension.) Tension setting can be set between 2 and 6. See pages 14-15.

Set Stitch Width

④ Move the stitch width slide to 0. See page 13.

Which Presser Foot to Use

⑤ Use metal presser foot for the best sewing result.



STRAIGHT STITCH

The straight stitch is used to sew a seam in woven fabrics. The straight stitch may also be used for gathering, basting, sewing in a zipper, pintucks, rolled hems and twin needle hems.

For a fine or lightweight fabric, use a stitch length of 1.5 to 2.5. For a thick or heavyweight fabric, use a stitch length of 2.5 to 4.0.



STARTING TO SEW

Raise the presser foot and position the fabric next to a seam allowance line on the needle plate. Lower the needle to the point where sewing is to begin.

Pull the threads under the foot towards the back and lower the presser foot. Press the foot control. Gently guide the fabric along the seam allowance line letting the fabric feed naturally.



FINISHING OFF A SEAM

To fasten the threads at the end of a seam, press and hold the reverse stitch lever while sewing.

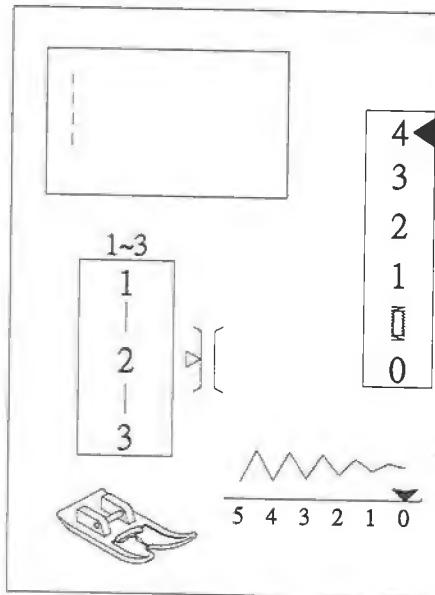
Raise the presser foot. Use the flywheel to bring the needle to its highest position before moving the fabric. Remove the fabric; pull the threads to the back and cut threads using the thread cutter. (The threads are cut the proper length to start the next seam.)

CHANGING SEWING DIRECTION

Begin sewing and stop when you reach the point where you want to turn the fabric. Using the flywheel, bring the needle down into the fabric.

Raise the presser foot.

Pivot the fabric around the needle to change the sewing direction. Lower the presser foot and continue sewing.

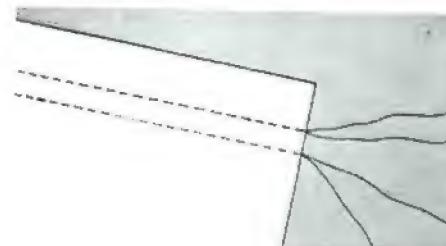


GATHERING

Gathering with straight stitches works best on light to medium weight fabrics.

Decrease tension to 1.0 – 3.0.

Increase stitch length to 4.



Pull on the bobbin threads simultaneously from each end of the fabric until the desired amount is gathered.

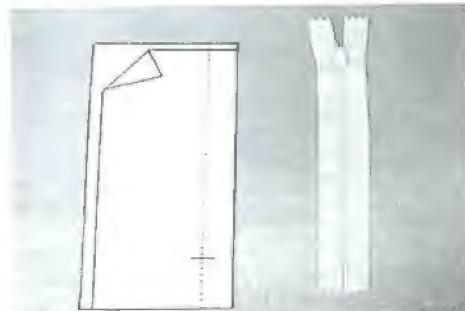
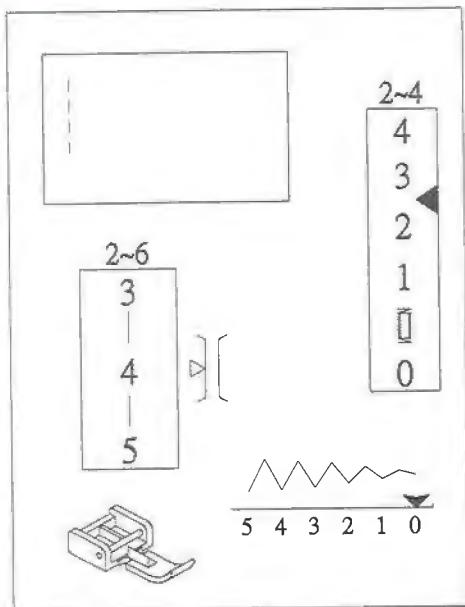
Knot the threads at each end and distribute the gathers evenly.

Reset machine settings to normal.

Sew between two rows of stitching to secure gathering.

OR

Lay gather fabric over flat fabric and sew the two fabrics together directly on the second row of gathering stitches.



ZIPPER INSERTION

Lapped Application

Attach the pin on the zipper foot to the groove on the shank.

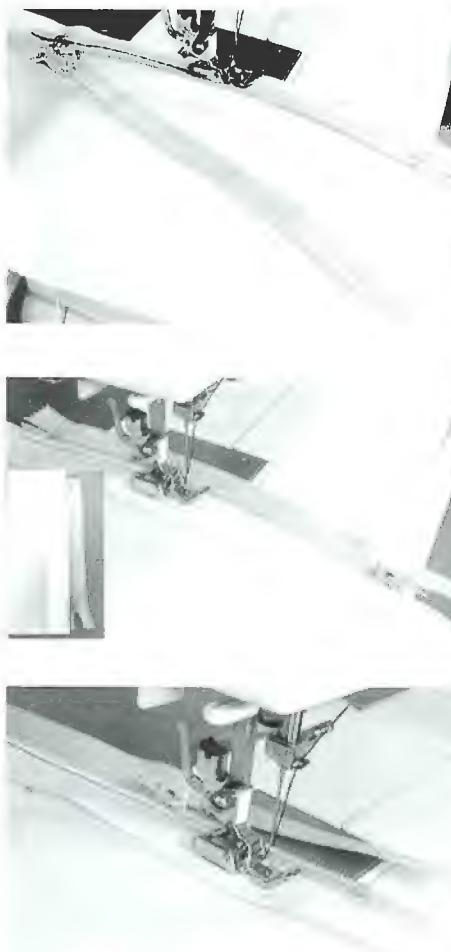
- To sew the left side of the zipper, attach the zipper foot on the right-hand side.
- To sew the right side of the zipper, attach the zipper foot on the left-hand side.

Fabric Preparation

Add 1 cm (3/8") to the zipper size. Use this measurement and mark the opening for the zipper.

Place right sides of fabric together and sew the seam located below zipper placement. (Make sure to reverse sew the stitches directly below the zipper placement.)

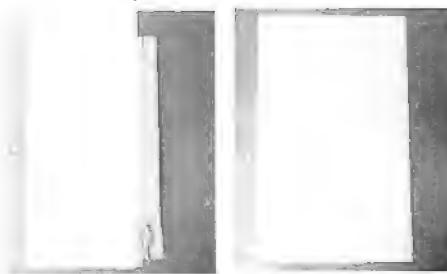
Increase stitch length to 4 and baste the zipper opening closed. Press the seam and basting seam open.



Open zipper and place it face down on the seam allowance. Teeth are on the seam line and zipper top is 1 cm (3/8") from fabric top edge. Attach foot with left side pin. Baste zipper in place, sewing from bottom to top.

Close zipper. Turn zipper face up (right seam allowance forms a small fold at basting line) and smooth zipper teeth away from seam. Attach foot with right side pin. Reset straight stitch length to 2.5. Starting at the bottom, sew through the folded seam allowance and zipper tape.

Stop just before the zipper foot reaches the slider on the zipper tape. Lower the needle slightly into the fabric. Raise the zipper foot and open the zipper. Lower the foot and stitch the remainder of the seam.



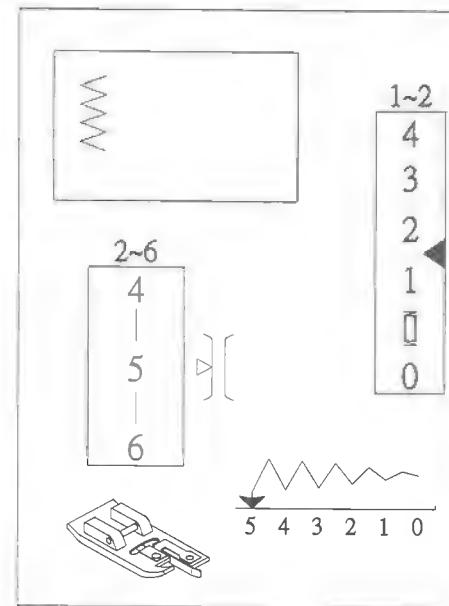
Close the zipper and spread the fabric flat with the right side facing up. Baste through the opened seam allowance and zipper tape.



Move the zipper foot to the left side pin. Guide the edge of foot along the zipper teeth and stitch through the garment and zipper tape. Stop about 5 cm (2") from the top of the zipper.



Slightly lower the needle into the fabric. Raise the foot, remove the basting stitches and open the zipper. Lower the foot and stitch the remainder of the seam, making sure the fold is even.



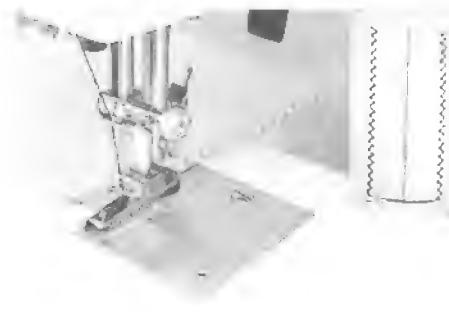
ZIGZAG STITCH

Overcasting

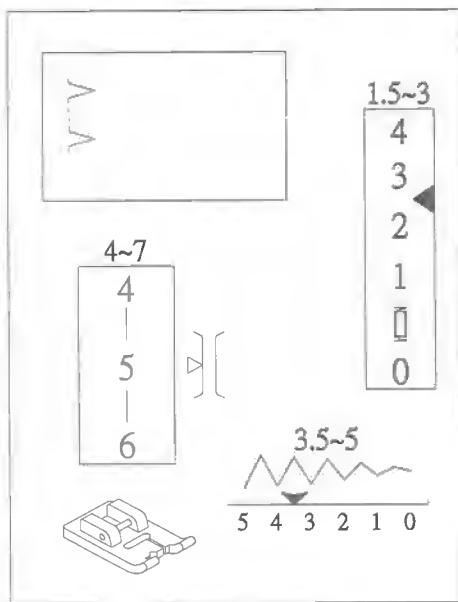
Simple zigzag stitching is used for finishing raw seam edges to prevent fabric from unraveling. Finishing seam edges is called overcasting.

Do not set the stitch width slide lower than 5 when using the overlock foot.

(For model 2003 use the widest zigzag width.)



Place the fabric edge next to the metal guide on the foot.



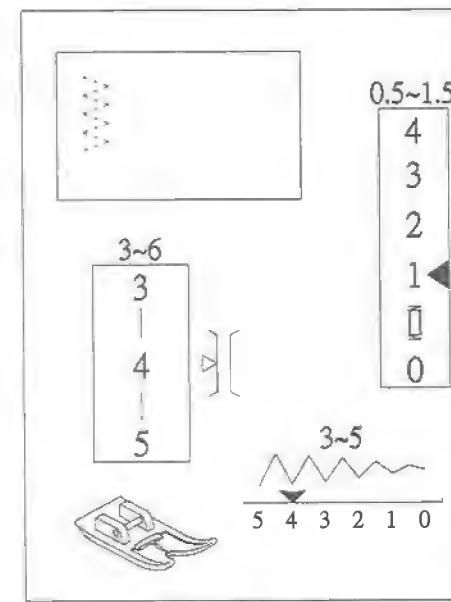
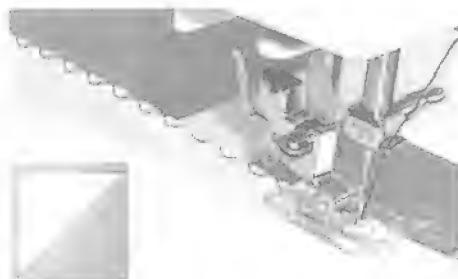
SHELL HEM

This is a pretty hem finish for lingerie and tricot fabrics.

Use a lightweight fabric such as tricot. Fold and stitch on the bias. Set the stitch width and length as you desire. You may need to tighten the top thread slightly. Allow the needle to just clear the folded edge of the fabric when it swings off the fabric to the right.

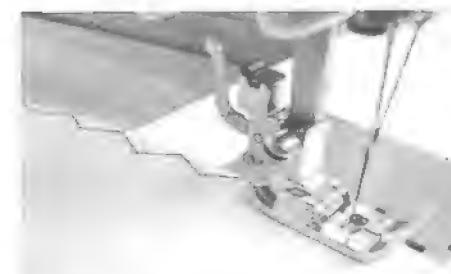
If you sew rows of shell stitches, space the rows at least 1.5 cm (5/8") apart.

You can sew shell stitches in any direction on knits or soft silky wovens.

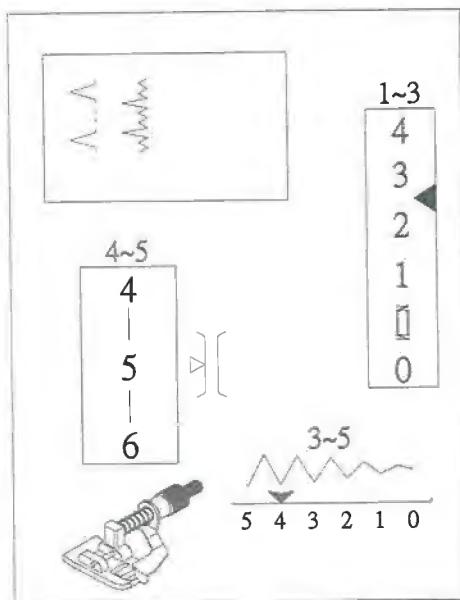


3-STEP ZIGZAG

The 3-step zigzag (sometimes called a multiple zigzag) is used to finish raw seam edges. This stitch gives a flatter edge finish than the regular zigzag. It is also used for mending tears in fabric.



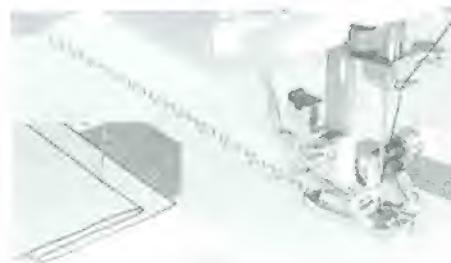
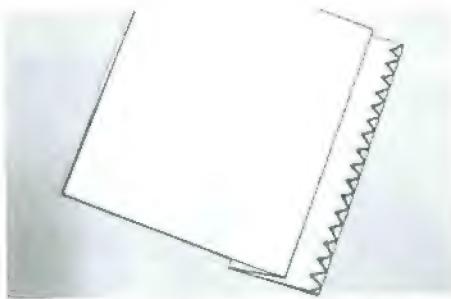
Place the fabric under the presser foot with the right side of the foot edge next to the fabric edge.



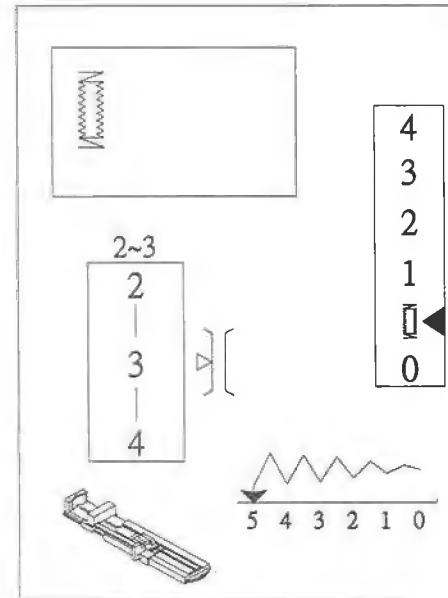
STRETCH BLIND HEM (Models 2007 and 2005)

OR WOVEN BLIND HEM (Model 2003)

The blind hem may be used to sew a blind hem on either knit or woven fabrics. The stretch blind hem was invented by Elna in 1952.



Position the fabric so the folded edge is to the left side of the guide. Lower the presser foot. Make sure only the widest zigzag catches one or two fibers of the fold. By turning the adjustment nut, it is possible to move the guide to the right or left.



AUTOMATIC BUTTONHOLES (Models 2007 and 2005)

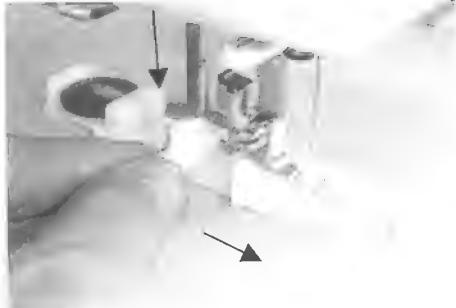
All buttonholes should use interfacing that is the same weight as the fabric. Interfacing is especially important when sewing on stretch fabrics. **Always** make a test buttonhole on extra fabric before sewing on your garment.



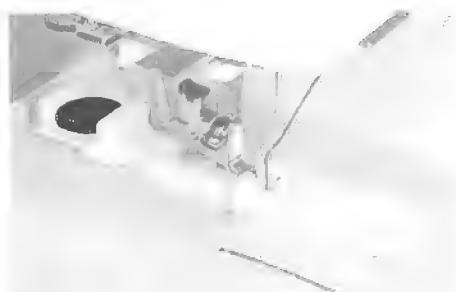
1. Attach the automatic buttonhole foot. Make sure the button opening is at the back of the foot when it is attached.

2. Pull open the button holder and place the button in it. Push the holder together tightly around the button.

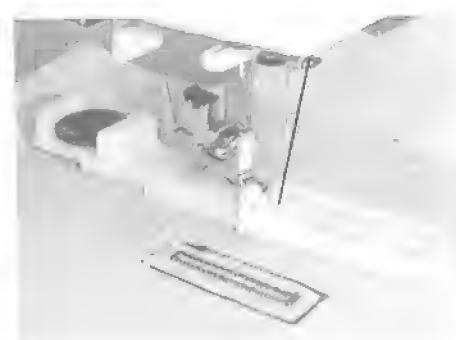
Placing the button in the automatic buttonhole foot automatically sets the size of the buttonhole. The button holder on the foot adjusts for a button up to 2.5 cm (1") in diameter.



3. Pull the buttonhole lever down as far as it will go. Pull buttonhole lever forward.



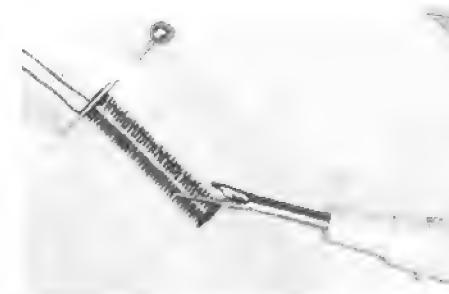
4. Mark the buttonhole area on the fabric. Place both threads to the left under the foot. Insert the garment under the foot and turn the flywheel until the needle comes down into the fabric. The needle should go in exactly at the marked line for the buttonhole. Lower the presser foot.
(See note on page 37)



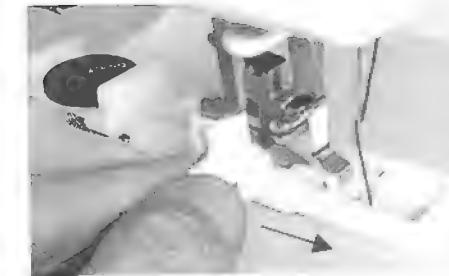
5. The buttonhole will automatically be sewn:

- ① the back bartack and zigzag on left side
- ② front bartack
- ③ zigzag on right side

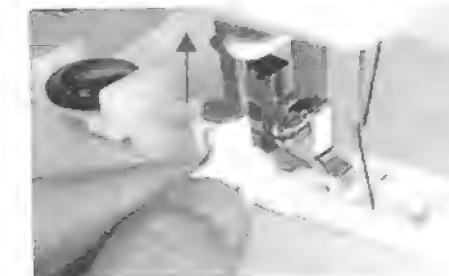
Sew slowly and stop the machine at the starting point when a buttonhole is completed.



6. Cut threads at least 10 cm (4") long. Pull the needle thread to the wrong side of the fabric. Knot the threads.



7. To cut the buttonhole open, place a pin just inside the bartack (to prevent accidentally cutting bartack) and use a seam ripper.

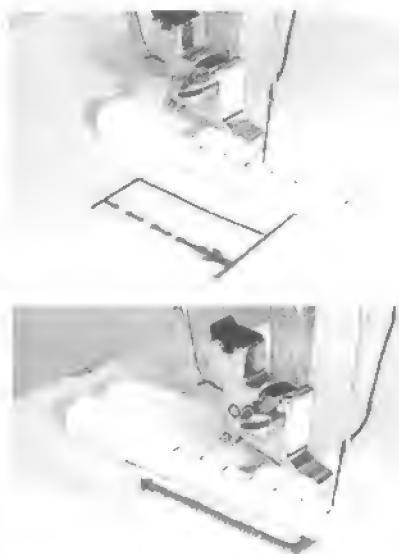
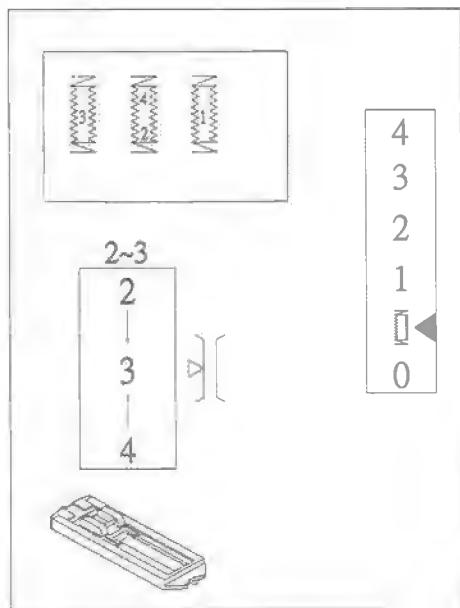


To sew another buttonhole, pull buttonhole lever forward.

When buttonhole sewing is finished, push the buttonhole lever upward as far as it will go.

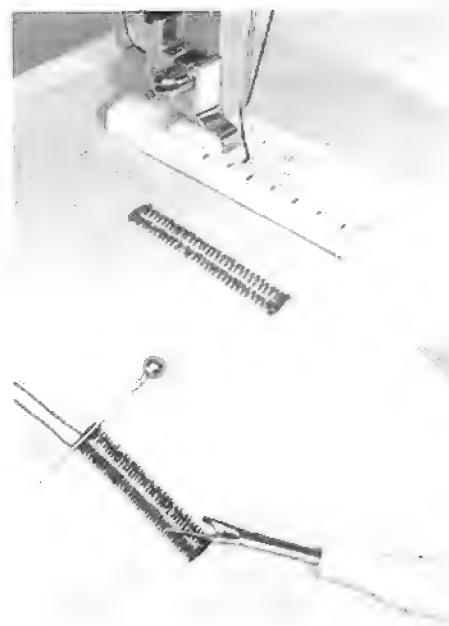
NOTE: How to restart the buttonhole process if a buttonhole has not been completed?

1. If you have sewn the second bartack, simply lift the presser foot, move the fabric, pull the buttonhole lever forward, lower the presser foot and sew.
2. If you have not sewn second bartack, pull the buttonhole lever backward, lift the presser foot and remove the fabric. Hand turn the flywheel three times, replace the fabric, pull the buttonhole lever forward, lower the presser foot and sew.



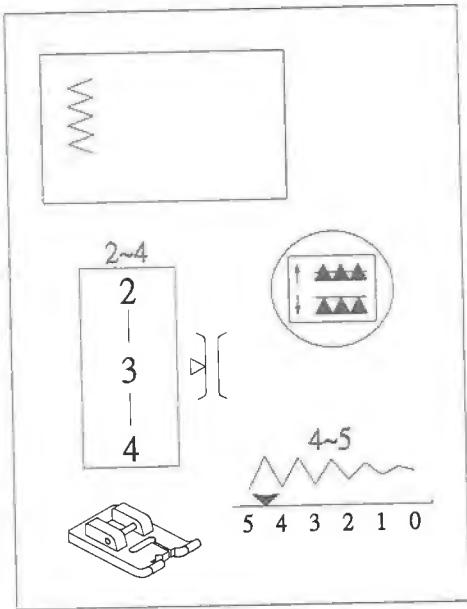
4-STEP BUTTONHOLES (Model 2003)

All buttonholes should use interfacing that is the same weight as the fabric. Interfacing is especially important when sewing on stretch fabrics. **Always** make a test buttonhole on extra fabric before sewing on your garment.



4. Set stitch selection knob on buttonhole 9. Sew right side of buttonhole. Stop sewing when right length equals left length.
5. Set stitch selection knob on buttonhole 10. Sew 5 bartack stitches.
6. Cut threads at least 10 cm (4") long. Pull needle thread to wrong side of fabric. Knot the threads.
7. To cut the buttonhole open, place a pin just inside the bartack (to prevent accidentally cutting bartack) and use a seam ripper.

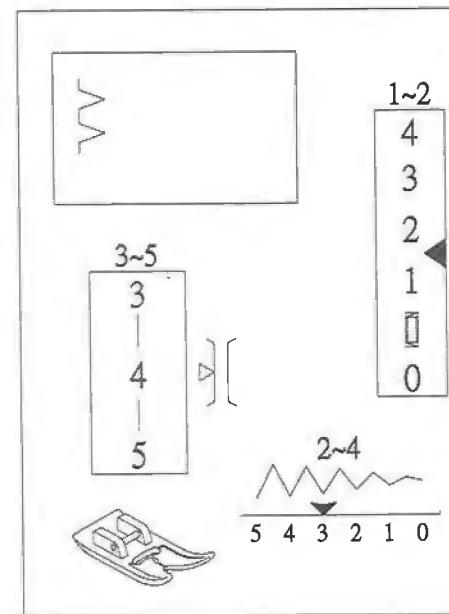
1. Set stitch selection knob on buttonhole 11. Turn the flywheel toward you to raise the needle to its highest position. Raise presser foot. Mark buttonhole placement.
2. Place fabric under presser foot. Lower presser foot. Sew left side of buttonhole. Stop sewing when desired length is sewn.
3. Set stitch selection knob on buttonhole 10. Sew 5 bartack stitches.



HOW TO SEW ON A BUTTON

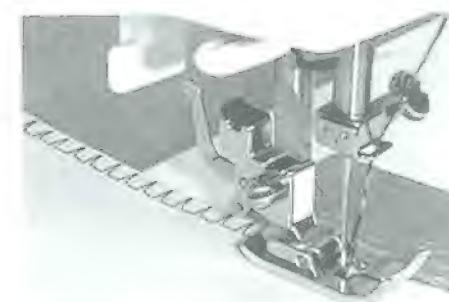
(For model 2003, use the widest zigzag width.)

1. Drop the feed dog. See page 11.
2. Place the button on the fabric and turn the flywheel to lower the needle into one hole of the button.
3. Lower the presser foot to hold the button in place.
4. Turn the flywheel to have the needle enter the opposite hole of the button. Readjust the stitch width if necessary.
5. Stitch several times.
6. After you finish sewing, cut the thread but leave 10-15 cm (4-6") of thread at the button.
7. Pull the thread to the reverse side of the fabric and tie the threads.
8. Raise the feed dog after sewing on buttons. See page 11.

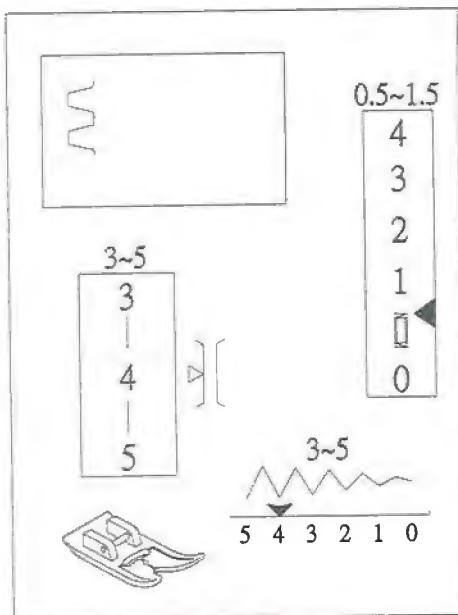


LINGERIE STITCH OR SINGLE OVERLOCK STITCH (Models 2007 and 2005)

The single overlock stitch is a good stitch for seaming lingerie and tricot fabrics.



Place the fabric right sides together and put them underneath the presser foot. Sew with the needle swinging off the right side of fabrics.



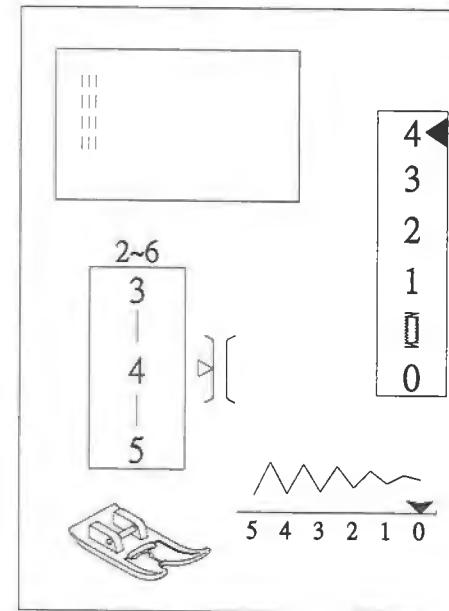
BOX STITCH (Model 2007)

Choose the Box stitch to attach elastic directly onto fabric without making an elastic casing.



1. Mark the elastic into quarters and match these to the center front, center back and side seams.

2. Place the middle of the elastic under the center of the presser foot and stitch into place, making sure the elastic is evenly stretched.



SECTION IV Stretch Stitches

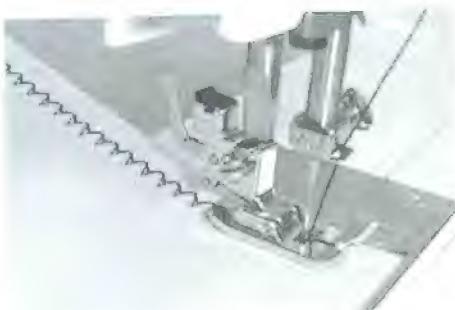
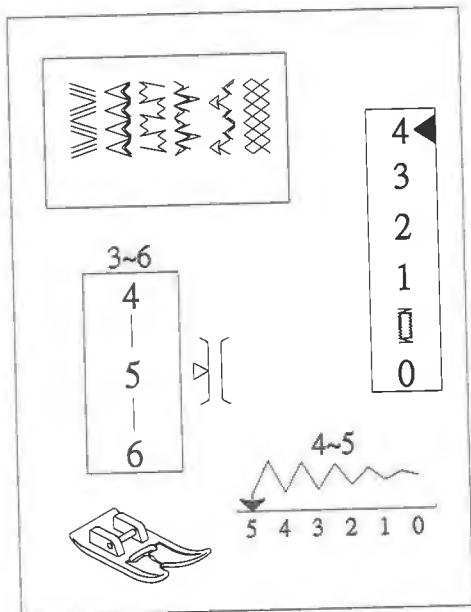
TRIPLE SEAM

This stitch is used for areas in garments that need to be extra strong, like crotch seams or armhole seams. It is a strong and stretchy stitch that will not easily tear. Elna invented this stitch in 1952. The needle sews forward, backward and forward to form a single stitch. Garments should be basted together and properly fitted before sewing this stitch.

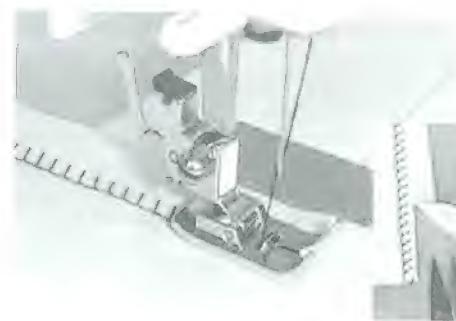
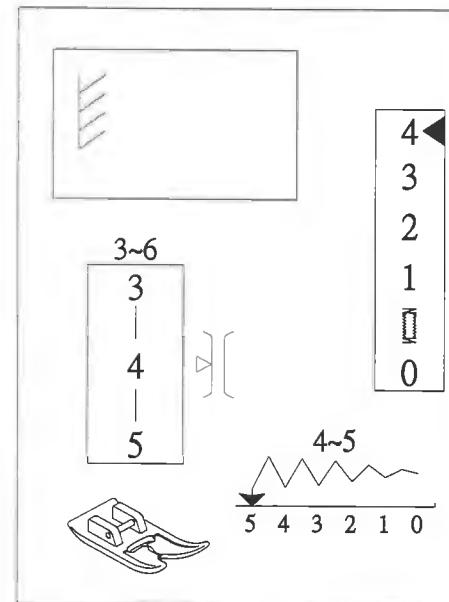


DECORATIVE STRETCH STITCHES

Choose a decorative stretch stitch for applying a hem to knit fabrics.



1. Fold and press under hem allowance.
2. Place the fabric underneath the presser foot. Lower the presser foot. Sew hem.
3. Trim away any excess hem fabric.



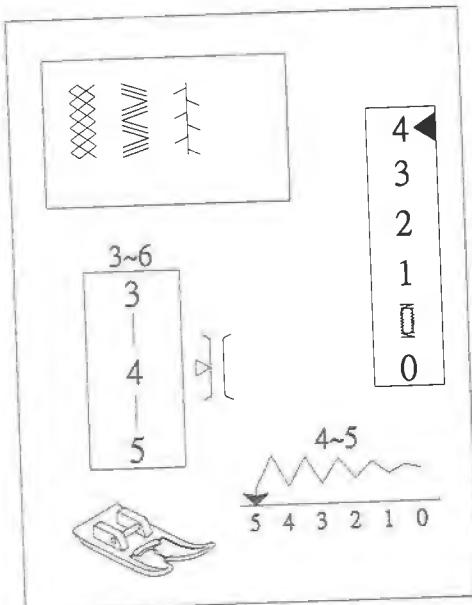
SUPER STRETCH STITCH

This stitch is recommended for sewing fabrics such as swimwear and stretch velour as it provides the greatest amount of stretchability and strength. Seams lie flat and do not lose their shape. Foot pressure dial may need to change to "1" for fabric to maintain its shape.

Place the fabric edges together under the presser foot. Trim away any excess seam allowance.

SMOCKING

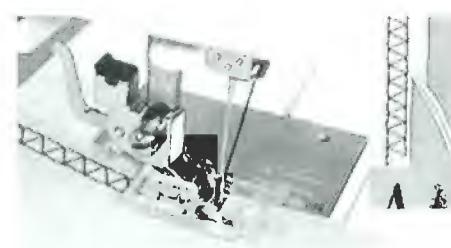
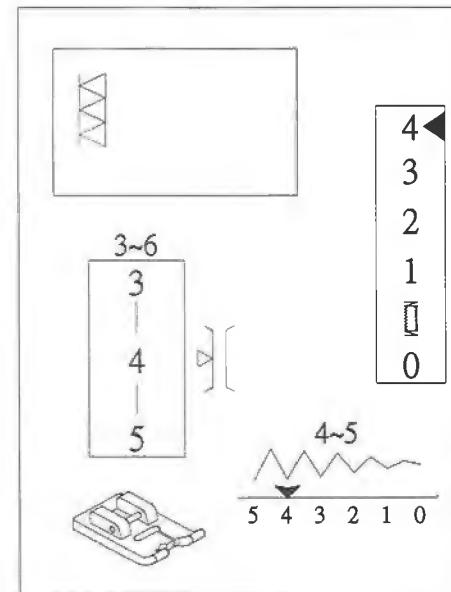
Smocking is a delicate, decorative treatment on children's clothing or women's blouses. Choose a soft, lightweight fabric such as batiste, gingham or challis. Cut the fabric three times the finished width.



1. Set needle thread tension to 3.0. Use the straight stitch with the stitch length at 4.0.
2. Sew rows of straight stitches about 13 mm (1/2") apart, across the area to be smocked.
3. Tie the threads along one edge. Pull the bobbin threads to gather the fabric and make the gathers even. Tie the threads at the other end.
4. Turn the stitch selection knob to decorative stitch. Set needle thread tension to 4.0.
5. Sew the decorative stitch between the straight stitching lines.
6. Pull out straight stitching lines.

DOUBLE OVERLOCK STITCH (Models 2007 and 2005)

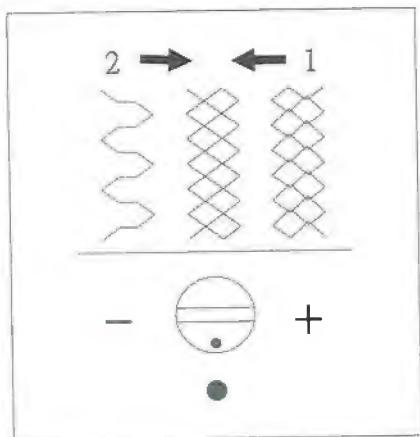
This stitch finishes the edges of your seams similar to a commercial overlock machine stitch.



Place the fabric edges together under the presser foot. Trim away any excess seam allowance.

FINE TUNING (Models 2007 and 2005)

If the stretch stitch doesn't look right, you may need to change the fine tuning screw.



To fine tune the stitch, use a screwdriver to move the screw.

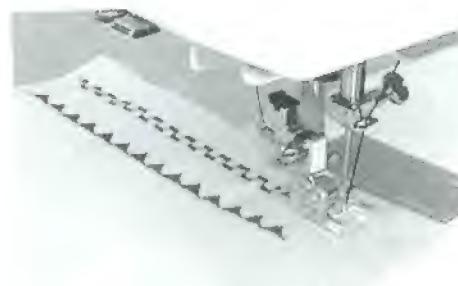
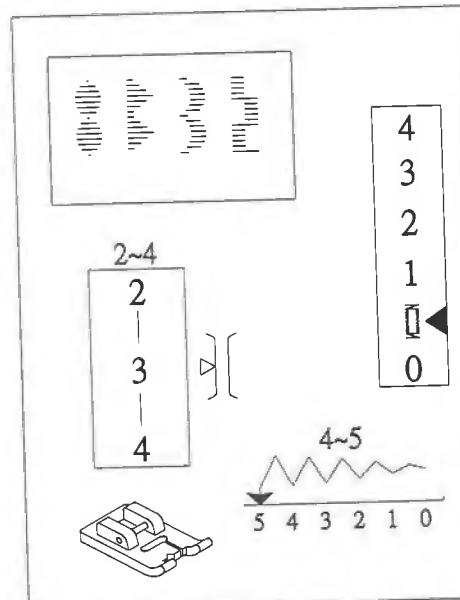
1. If stitches are too short, correct by turning the screw in the direction of "+".
2. If stitches are too long, correct by turning the screw in the direction of "-".

SECTION V Satin Stitches (Models 2007 and 2005)

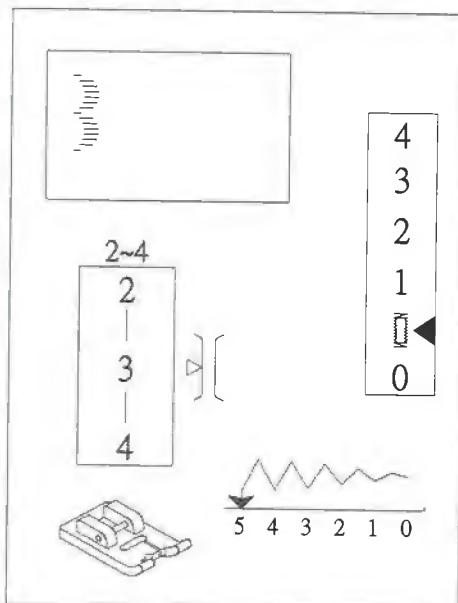
DECORATIVE ACCENT

There are pretty satin stitches to use for decoration. Express your creative talents by adding a decorative accent.

It is very important to use a stabilizer with your fabric or the stitch will not form correctly. The weight of the stabilizer should be the same as the fabric.

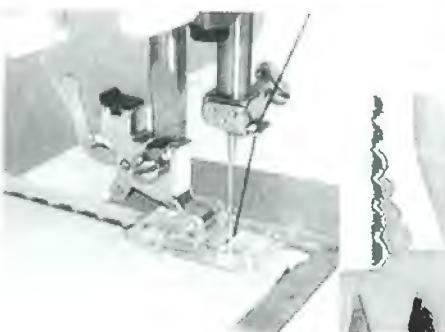


1. Use a washable fabric marker to draw lines for the satin stitches.
2. Place the fabric underneath the presser foot. Lower the presser foot and sew over the line.

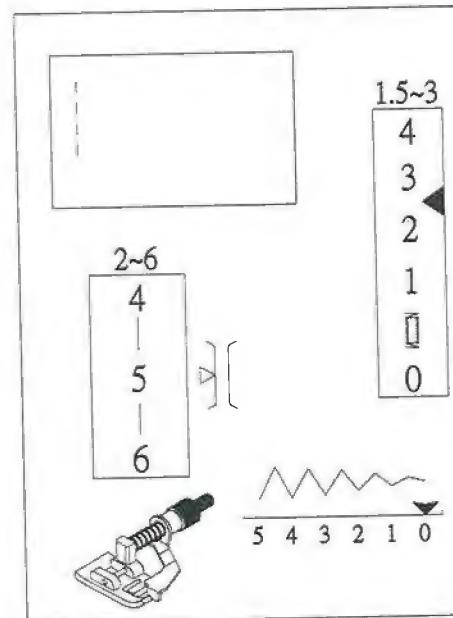


SCALLOP EDGES (Models 2007 and 2005)

A scallop satin stitch can be used to attractively finish the edges of collars, pockets and placemats.



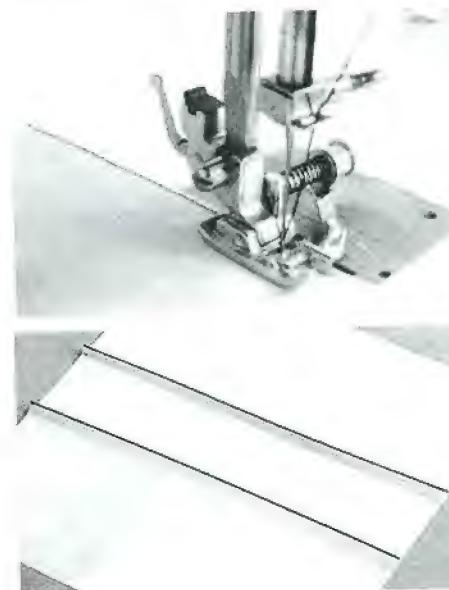
1. To edge a collar, place interfacing between upper and under collar and sew the scallop on the seam line.
2. After sewing, trim fabric close to stitching, taking care not to cut the scallops.



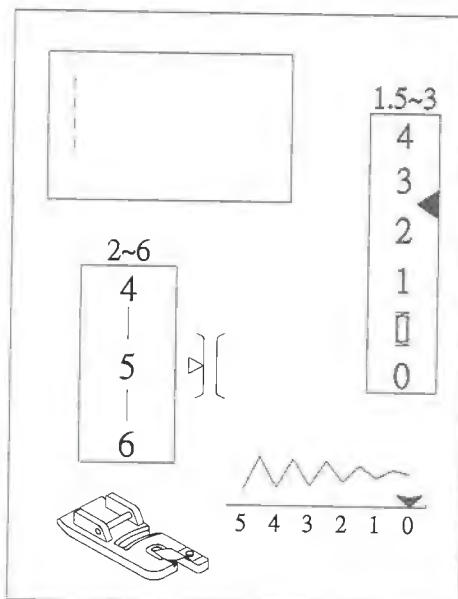
SECTION VI Special Techniques

PINTUCKS

Pintucks should be added to your fabric before cutting out the pattern piece.



1. Use a washable fabric marker and draw lines for pintucks on the fabric right side.
2. Fold the fabric together on the first line with wrong sides together.
3. Place folded fabric under presser foot against the blind hem foot guide. Lower the needle into the fabric. Decide how wide you want the pintucks and move the thumb nut to move the guide.
4. Sew using the foot as a guide for the folded edge.
5. Sew all pintucks. Remove fabric marker lines before pressing pintucks to one side.

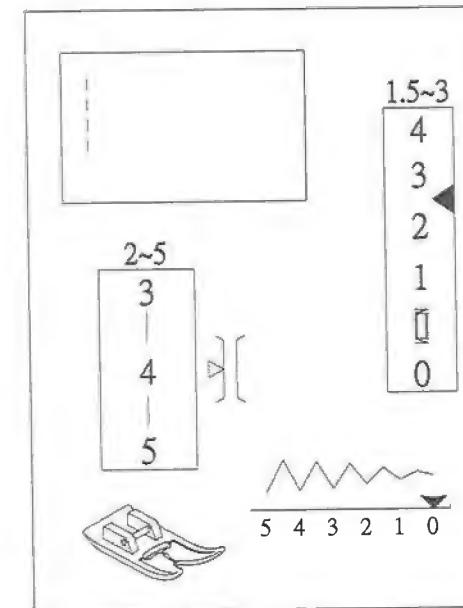


NARROW HEM

An easy, professional way to sew hems using the straight stitch. Recommended for fine, sheer fabrics used in bridal wear.

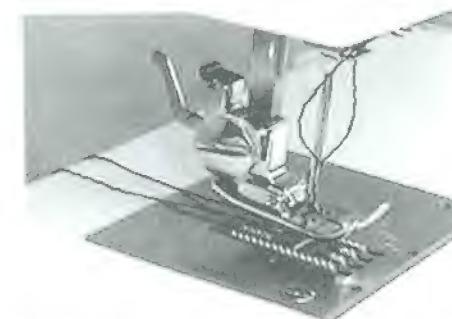
1. Make a double 3 mm (1/8") fold approximately 8 cm (3") in length.
2. Lower the needle into the fabric at the point where sewing is to begin. Lower the hemmer foot. Sew 3 or 4 stitches while holding the needle and bobbin threads.
3. Lower the needle into the fabric and raise the hemmer foot. Insert the folded portion of the fabric into the curl of the hemmer foot.
4. Lower the hemmer foot; sew by lifting up the edge of the fabric to keep it feeding smoothly.
5. Trim about 6.5 mm (1/4") from corners to reduce bulk.

NOTE: Use the zigzag stitch with a stitch width of 1.0-2.0 for a different look.



TWIN NEEDLE HEM

A twin needle hem is quick and easy. It is especially useful for very stretchy fabrics. Be sure to use a stretch twin needle for knit fabrics.



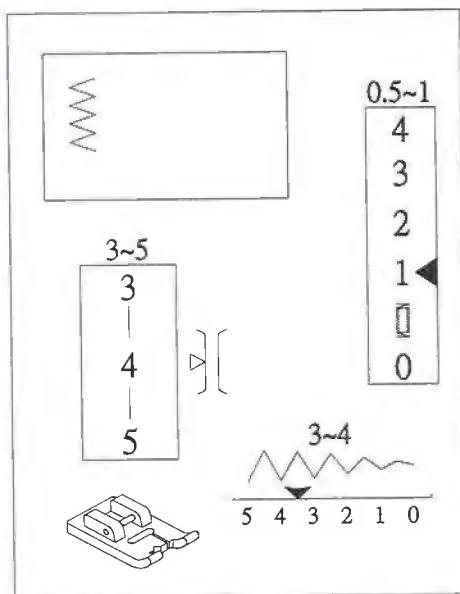
Turn off the power switch and insert a twin needle.

Thread the machine in the same manner as for single thread. See page 21.

Thread each needle from front to back.

Fold the hem up desired amount and topstitch with the twin needle. Carefully trim away excess fabric using sharp scissors. This is an excellent hemming method for knit fabrics because the bobbin thread zigzags, allowing the hem to stretch with the fabric.

Remove twin needle. Set up machine for single needle sewing.

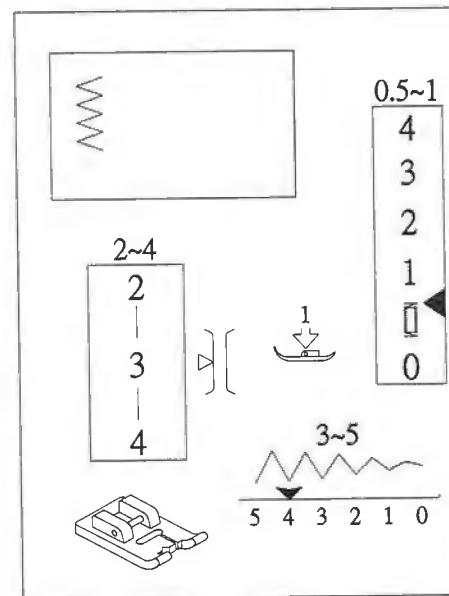


WHIP AND ROLL HEM

This technique makes a beautiful edge on ruffles and hems. It should only be used for lightweight fabrics.



1. The fabric edge must be clean cut with no unraveling threads.
2. Lay the fabric edge in the middle of the foot. Begin sewing slowly with the zigzag catching the fabric edge on the left and going off the raw edge on the right. The fabric will automatically roll itself under the stitch.



SATIN STITCH APPLIQUE

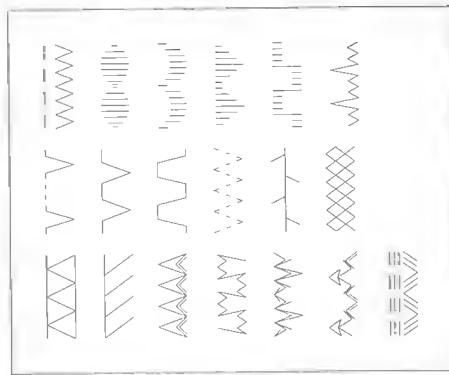
The zigzag stitch is commonly used for applique, monogramming, stems of flowers and petals. (A short zigzag stitch length creates the satin stitch.) Threads of 100% cotton, rayon or silk provide the best results.

- Apply stabilizer to the fabric for the stitch to form correctly.



Applique Preparation

1. Press fusible webbing to the wrong side of a lightweight fabric.
2. Cut out design shape. Fuse design to main fabric.
3. Sew design to fabric with the needle swinging off the applique.
4. When you reach a place where you need to turn, bring the needle into the fabric, raise the presser foot, turn fabric, lower the presser foot and continue sewing. *You may need to set the foot pressure dial to "1".*



SECTION VII

Exclusive Optional Elna Accessories

PIVOT PIN SEWING

Sew perfect curves or circles for doilies or large scallops.

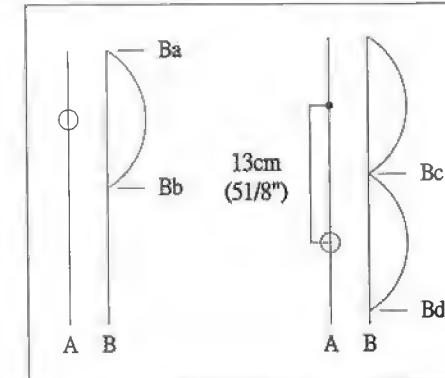
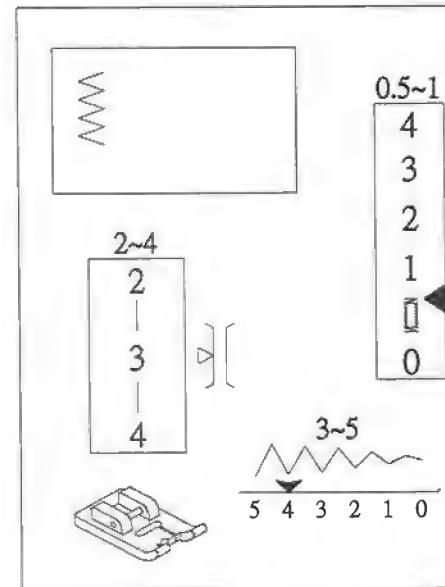
Circles and Curves

1. Attach the extension table to the free arm.
2. Choose any stitch.
3. Pierce center of fabric with pivot pin (optional accessory).

Insert pivot pin into a pivot hole on the extension table.

4. Lower presser foot. Sew. Smooth the fabric out evenly from the center to the front of the foot by hand.

NOTE: Light to medium weight fabrics will need a stabilizer to sew the circle/curve correctly.

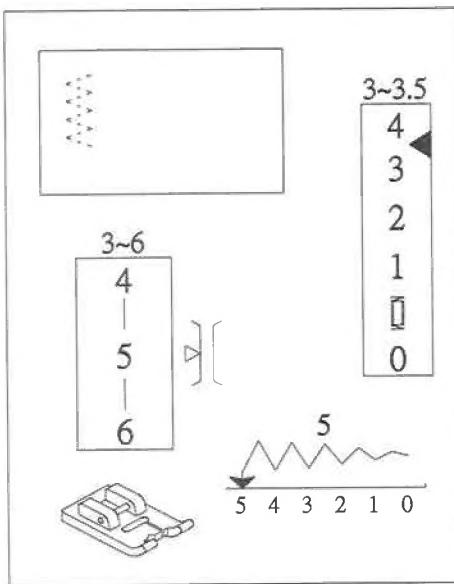


Large Scallop Border

Create scallops for beautiful fabric edges.

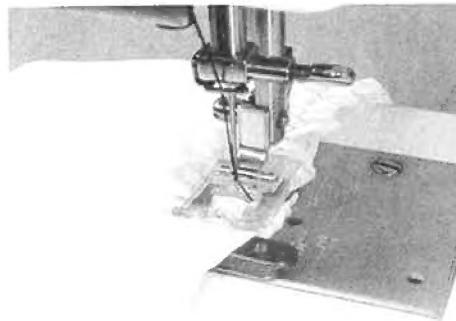
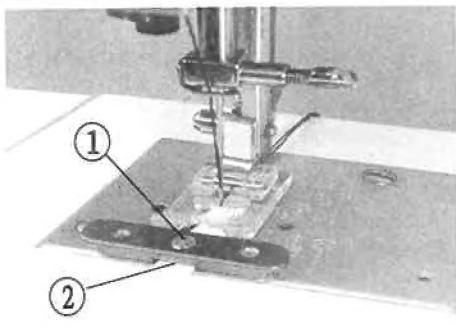
1. Attach the extension table to the free arm.
2. Draw two lines 25 mm (1") apart on the fabric with a washable fabric marker.
3. Insert pivot pin through line A and place pin in center pivot hole on table.
4. Begin sewing at line Ba and stop at line Bb.
5. To form second scallop, insert pivot pin through line A, 13 cm (5 1/8") away from first pivot point. Pivot fabric and check that scallops will intersect.
6. Begin sewing at line Bc and stop at line Bd. Sew remaining scallops using same method.
7. Trim fabric away to create large scallop border.



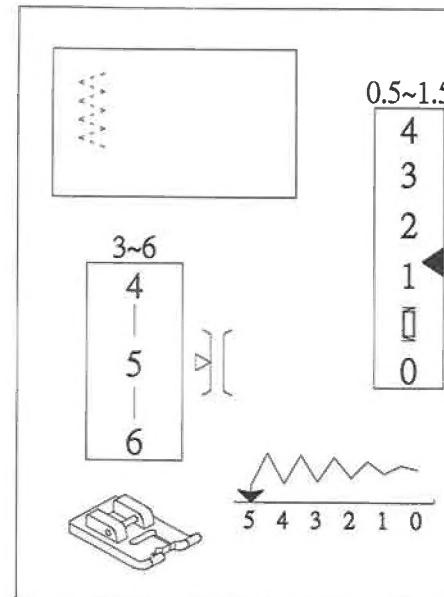


APPLY ELASTIC WITH ELASTIC GATHERER

The elastic gatherer stretches the elastic as it is sewn to the fabric, a quick and easy method. Available in 3 sizes – 7 mm, 10 mm or 13 mm (1/4", 3/8" or 1/2").

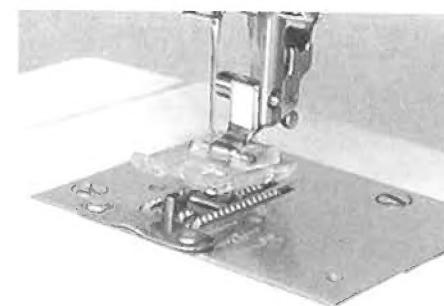


1. Loosen the adjusting screw ① on the elastic gatherer and insert elastic into slot ②. Pull elastic through slot until 4 cm – 5 cm (1 1/2" – 2") extends out the back. Tighten adjusting screw.
2. Attach elastic gatherer to machine.
3. Place scrap fabric under foot on top of elastic. Lower presser foot. Test sew.
4. Tighten or loosen adjusting screw as desired.
5. Apply elastic directly to sewing project.

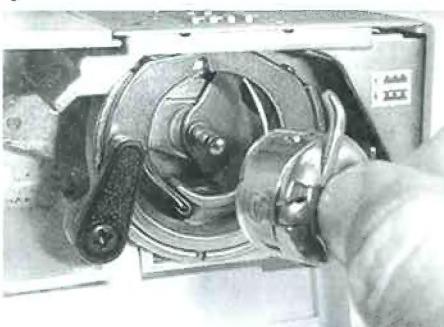


FAGOTING (BRIDGING)

Fagoting is a technique seen in heirloom sewing. Two folded edges are joined together by threads over an open area. Use linen, cotton or a blend of linen/cotton.



1. Thread machine, needle and bobbin with a fine embroidery thread (50 weight or finer). Use spray starch to stabilize fabric.
2. Attach the narrow fagoting plate (optional accessory).
3. Fold and press under seam allowance to wrong side of fabric.
4. Place folded fabric right side up on both sides of fagoting plate. Sew slowly, guiding the fabrics against the fagoting plate. Adjust stitch width so needle catches folded edges.

1**2**

SECTION VIII

Taking Care of Your Machine

The area around the bobbin, hook and feed dog must be cleaned each time the machine has been used a lot.

Clean the outside of the machine with a soft cloth and pure soap.

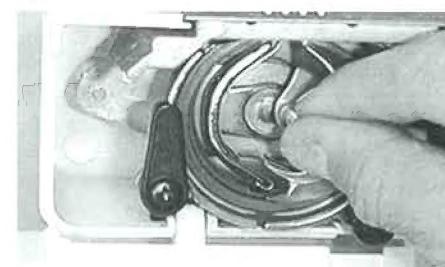
CLEANING THE BOBBIN CASE AND HOOK

Loose threads and dust may cause puckered stitches and thread breakage during stitching. Check for lint buildup after each project is completed.

Unplug the machine before cleaning.

Turn the flywheel until the needle is raised and remove the needle.

1. Open the bobbin cover. Pull out the latch and remove bobbin case and bobbin.
2. Open the hook race ring holders and remove the hook race ring. Remove the hook.

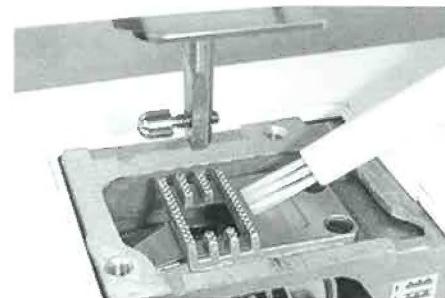
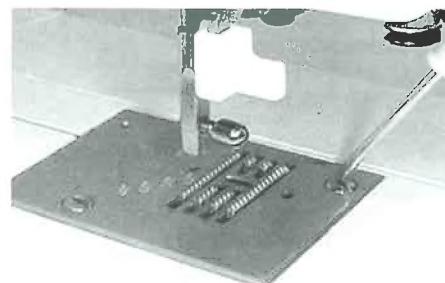
3**4**

3. Clean the hook race with a brush or a soft cloth. (You may also use a small vacuum cleaner.)

4. To assemble the hook race, hold the hook by the center pin and carefully put it back into the hook race. Attach the hook race ring making sure the bottom pin fits into the notch. Turn the holders back into position to lock the hook race ring. Insert the bobbin case. Oil the hook slightly.

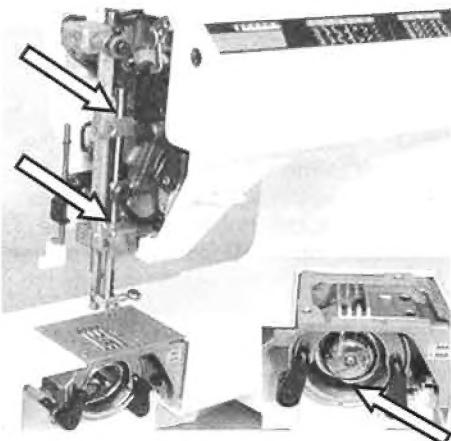
CLEANING THE FEED DOG

1. Unplug the machine. Remove the needle and presser foot. Remove the needle plate set screws and the needle plate.



2. With a brush, clean out dust and lint clogging the feed dog teeth.

3. Attach the needle plate. Replace needle and presser foot.

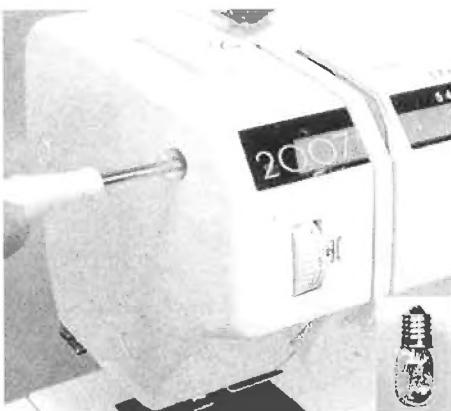


OILING

Unplug the machine.

Apply a few drops of sewing machine oil to the points indicated by arrows in illustrations.

Machine should be oiled two or three times a year or more depending on frequency of use.



CHANGING THE LIGHT BULB

The sewing light is located behind the face plate.

Unplug the machine.

Pull out the screw covers. Remove the screws and face plate.

To remove: twist to left.

To replace: twist to right.

Lamp Max. 15W.

TROUBLESHOOTING

PROBLEM & POSSIBLE CAUSE	SEE PAGE
The machine is noisy and does not run smoothly.	
1. Threads have been caught in the hook area.	60-61
2. The feed dog is packed with lint.	61
The needle thread breaks.	
1. The needle is not threaded properly.	21
2. The needle thread tension is too tight.	14-15
3. The needle is bent or blunt.	10
4. The needle is not inserted correctly.	10
5. The thread is either too heavy or too fine for the needle.	16
The bobbin thread breaks.	
1. The bobbin thread is not threaded correctly in the bobbin case.	20
2. Lint has collected in the bobbin case.	60-61
3. The bobbin is damaged and does not turn smoothly.	Change bobbin
The needle breaks.	
1. The needle is not inserted correctly.	10
2. The needle is bent or blunt.	10
3. The needle clamp screw is loose.	10
4. The needle thread tension is too tight.	14-15
5. The needle is too fine for the fabric being sewn.	16
6. The stitch selection knob has been turned while the needle was in the fabric.	12
Skipped stitches.	
1. The needle is not inserted correctly.	10
2. The needle is bent or blunt.	10
3. The needle and/or the thread are not suitable for the fabric being sewn.	16
4. A stretch needle is not being used for sewing stretch, very fine and synthetic fabrics.	16
5. The needle thread is not threaded properly.	21

PROBLEM & POSSIBLE CAUSE	SEE PAGE
The seam puckers.	
1. The needle thread tension is too tight.	14-15
2. The machine is not threaded correctly.	20-21
3. The needle is too large for the fabric being sewn.	16
4. The stitch length is too long for the fabric.	24
5. The foot pressure dial is not set correctly.	8
<i>Place lightweight tearaway stabilizer under lightweight fabrics.</i>	
The stitches form loops underneath the fabric.	
1. The needle thread tension is too loose.	14-15
2. The needle is either too large or too small for the thread.	16
The fabric does not feed smoothly.	
1. The feed dog is packed with lint.	61
2. The pressure foot dial is not set correctly.	8
3. The stitches are too short.	24
4. The correct presser foot is not being used.	24
The machine does not work.	
1. The machine is not plugged in.	17
2. A thread is caught in the hook area.	60-61
3. The flywheel is pulled out for bobbin winding.	19
4. The bobbin winder spindle is in the winding position.	19
The buttonhole is not correct.	35-38
1. The stitch length is not suitable for the fabric being sewn.	35,38
2. Interfacing is not being used with fabrics.	35,38
3. Buttonhole has not been completed.	37